

# MASSACHUSETTS

## Science and Engineering Profile

	MA	U.S.	Rank		MA	U.S.	Rank
Doctoral scientists, 1995	20,731	453,928	5	Total R&D performance, 1995 (millions)	\$9,969	\$177,210	4
Doctoral engineers, 1995	3,583	86,738	7	Industry R&D, 1995 (millions)	\$7,416	\$130,332	5
S&E doctorates awarded, 1996	1,575	27,230	4	Academic R&D, 1995 (millions)	\$1,147	\$21,606	5
of which, in engineering	24%	23%		of which, in life sciences	40%	55%	
in life sciences	24%	25%		in engineering	20%	16%	
in social sciences	18%	15%		in physical sciences	16%	10%	
S&E postdoctorates, 1995	3,185	35,379	2	Higher education current-fund expenditures, 1995 (millions)	\$7,974	\$182,602	6
in doctorate-granting institutions							
S&E graduate students, 1995	23,083	436,328	4	Number of SBIR awards, 1990-1996	4,177	26,399	2
in doctorate-granting institutions				Patents issued to state residents, 1996	2,452	61,099	9
Population, 1996 (000s)	6,092	269,067	13	Gross state product, 1994 (billions)	\$186.2	\$6,876.0	10
Civilian labor force, 1996 (000s)	3,189	135,528	13	of which, agriculture	1%	2%	
Personal income per capita, 1996	\$29,439	\$24,231	4	manufacturing, mining, construction	20%	23%	
Federal spending				transportation, communication, utilities	7%	9%	
Total expenditures, 1996 (millions)	\$36,457	\$1,368,858	12	wholesale and retail trade	15%	16%	
R&D obligations, 1995 (millions)	\$3,340	\$67,080	6	finance, insurance, real estate services	23%	19%	
				government	25%	20%	
					9%	13%	

Rankings and totals are based on data for the 50 states, D.C., and Puerto Rico.

Data on S&E postdoctorates and S&E graduate students include health fields.

## Federal Obligations for Research and Development in Massachusetts by Agency and Performer: Fiscal Year 1995

[Thousands of Dollars]

	Total	Federal intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank
<b>Total, all agencies</b>	3,339,532	315,749	319,172	1,337,516	767,355	587,363	12,377	6
<b>Department of Agriculture</b>	21,574	15,529	0	160	5,364	521	0	21
<b>Department of Commerce</b>	57,772	26,479	0	27,207	3,682	49	355	5
<b>Department of Defense</b>	1,817,242	193,925	305,262	1,158,637	109,143	50,275	0	5
<b>Department of Energy</b>	99,989	20	0	7,177	86,485	6,307	0	13
<b>Dept. of Health &amp; Human Services</b>	933,229	27,841	2,805	83,281	343,448	468,178	7,676	3
<b>Department of the Interior</b>	6,397	5,249	370	81	697	0	0	19
<b>Department of Transportation</b>	63,704	41,926	7,729	7,954	1,909	0	4,186	3
<b>Environmental Protection Agency</b>	25,613	0	0	15,532	8,030	1,891	160	5
<b>Nat'l Aeronautics &amp; Space Admin.</b>	146,346	3,593	2,892	28,584	58,896	52,381	0	10
<b>National Science Foundation</b>	167,666	1,187	114	8,903	149,701	7,761	0	3
<b>State rank</b>	6	12	4	7	3	1	3	

Federal R&D obligations are as reported by funding agencies.

FFRDC = federally funded research and development center

SBIR = small business innovation research

na = not applicable